Perspective on the future

by Bruce Kilgore

I have always liked NPS Senior Scientist Gary Davis's four-word summary of the resource stewardship part of the NPS mission: know, restore, maintain, and protect. Gary's point is that we must first know what resources we have in our parks and their condition before we can restore natural processes that are out of whack and maintain systems and protect resources that are still in good shape. Although the approach is straight forward and at the heart of our resource preservation work, we have struggled to implement it fully.

Throughout my career, more than a dozen reviews of NPS research and resource management programs have noted the extreme importance of knowing about parks and their resources before taking management action. The 1963 Leopold report, for example, pointed out the folly of tinkering with natural processes without understanding them. Unfortunately, a 1992 review of the NPS science program concluded that both the Leopold and Robbins (also 1963) reports remain as relevant today as they were three decades ago, because few of their recommendations have been implemented effectively.

My philosophy of NPS natural resource research is based on those two important 1963 reports. First, the Park Service needs a permanent research program, which it should plan and administer itself. Second, most of the research should be mission oriented. Third, the results of the research should be publishable and be published! The advent of the National Biological Service in 1993 (now the Biological Resources Division of the U.S. Geological Survey), and the recent NPS reorganization have greatly shifted responsibilities for acquiring and conducting natural resource research. Now, to meet the future needs of park resources, park superintendents, resource managers, NPS senior scientists, and research scientists of the Biological Resources Division must play key team roles.

Because of their unique experience as credible scientists who have earned the trust of park managers, certain NPS senior scientists are needed—at least on an interim basis—to bridge the gap between the Park Service and the Biological Resources Division. They must serve as analysts, consultants, and advisors to both superintendents and regional directors. In time, professional resource managers will likely take on more of the functions of science advisor, strategic planner, program oversight, and liaison. But during this transition period, senior scientists must ensure that a strong team effort between the two agencies successfully meets the real needs of park superintendents.

Also vital are adequate staffing and funding. Several years ago, the Western Region developed a system to accurately determine the professional natural resource management staff needs of each unit in the national park system. The first phase of an initiative known as "Stewardship Today for Parks Tomorrow" was based on these efforts and aimed to double NPS professional staff by the year 2000. Achievement of this goal and other current initiatives is essential to the future of natural resource preservation in parks.

As a strong advocate of resource management and research programs in national parks and wilderness, I feel we need to clarify our hands-on approach to restoring natural processes and conditions in national parks. This is a big challenge for the future and applies, for example, to the use of prescribed fire where fire has been kept out for many years and even decades. In the end, we must approach the assignment of restoring natural environmental conditions with humility and great ecological sensitivity. Our guiding principle should be the maintenance of naturalness. And whenever and wherever possible, the best way to restore a semblance of native America may be to let natural forces run their own course.

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Editor's Note: Dr. Bruce Kilgore retired from the National Park Service in March 1997, capping an influential 40-year career in natural resource management. Kilgore pioneered fire ecology research in Sierra Nevada parks in the 1960s, leading the way to the first prescribed natural fire program in the national park system. As a research administrator with the Pacific West Region since 1985, he built programs for professional research and resource management that became models for the National Park Service. Most recently he has been the driving force in returning key staff to the Park Service as Senior Scientists. His vision has often proved to forecast the future, and his legacy will be felt for many years. These are his thoughts at retirement.

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